The Influence of Canopy Dominants on Understory Vegetation Patterns in an Old-growth Cedar-hemlock Forest.....David P. Turner and Eldon H. Frans 387
Self-fertilization in Amphicarpum purshii: Its Influence on Fitness and Variation of Progeny from Aerial Panicles ...Gregory P. Cheplick and James A. Quinn 394
The Birth and Spread of a Plant Population .....A. R. Kruckeberg 403
Fire and Changes in Creosote Bush Scrub of the Western Sonoran Desert, California .....David E. Brown and Richard A. Minnich 411
Comparison of Biomass Recovery after Fire of a Seeder (Ceratiola ericoides) and a Sprouter (Quercus inopina) Species from South-Central Florida .....
.....Ann F. Johnson, Warren G. Abrahamson and Kenneth D. McCrea 423

Notes and Discussion

Responses of the Shrub, Baccharis pteronioides, to Livestock Exclosure in Southeastern Arizona .....William R. Kenney, Jane N. Bock and Carl S. Bock 429
Leaf Value and Optimal Defense in Pastinaca sativa L. (Umbelliferae) .....
.....Arthur R. Zangerl 432
Statement of Ownership 437

AUTHOR INDEX

Abrahamson, Warren G. 423
Anthony, Robert G. 108

Baird, Wm. Vance 140
Baskin, Carol C. 132
Baskin, Jerry M. 132
Bliss, Margaret 125
Bock, Carl E. 429
Bock, Jane N. 429
Bragg, Thomas B. 202
Brown, David E. 411
Burr, Brooks N. 215
Butler, Jack. 378

Carey, Hannah V. 267
Carpenter, Stephen R. 282
Cheplick, Gregory P. 394
Choromanski-Norris, Jane 101
Chung, Jayson C. 315
Cox, George W. 64
Crews, Amy E. 304

Dauble, Dennis D. 356
Deegan, Linda A. 296
de la Rosa, M. E. 219
Detling, James K. 197

Ehrlich, Paul R. 1
Elser, James J. 282
Elser, Monica M. 282
Esch, Gerald W. 304

Franz, Eldon H. 387
Fritzell, Erik K. 101

Gaso, M. I. 219
Geluso, Kenneth N. 202
Glazier, Douglas S. 57
Goater, Timothy M. 304
Goetz, Harold 378
Gonzalez, F. 219
Gooch, James L. 57
Grossfield, Joseph 25
Guzman, J. 219

Hager, Barbara J. 7
Hasbrouck, J. J. 246
Hazen, Terry C. 304
Hiebert, Ronald D. 276
Holman, J. Alan 213

Johnson, Ann F. 423
Jones, Kristina N. 1

Kapp, Ronald O. 368
Kelly, George M. 108
Kenney, William R. 429
Killingbeck, Keith T. 180
Kirkpatrick, R. L. 246
Kruckeberg, A. R. 403
Kuhajda, Bernard R. 215
Kurczewski, Frank E. 7

The Influence of Canopy Dominants on Understory Vegetation Patterns in an Old-growth Cedar-hemlock Forest.....David P. Turner and Eldon H. Frans 387
Self-fertilization in Amphicarpum purshii: Its Influence on Fitness and Variation of Progeny from Aerial Panicles ...Gregory P. Cheplick and James A. Quinn 394
The Birth and Spread of a Plant Population .....A. R. Kruckeberg 403
Fire and Changes in Creosote Bush Scrub of the Western Sonoran Desert, California .....David E. Brown and Richard A. Minnich 411
Comparison of Biomass Recovery after Fire of a Seeder (Ceratiola ericoides) and a Sprouter (Quercus inopina) Species from South-Central Florida .....
.....Ann F. Johnson, Warren G. Abrahamson and Kenneth D. McCrea 423

Notes and Discussion

Responses of the Shrub, Baccharis pteronioides, to Livestock Exclosure in Southeastern Arizona .....William R. Kenney, Jane N. Bock and Carl S. Bock 429
Leaf Value and Optimal Defense in Pastinaca sativa L. (Umbelliferae) .....
.....Arthur R. Zangerl 432
Statement of Ownership 437

AUTHOR INDEX

Abrahamson, Warren G. 423
Anthony, Robert G. 108

Baird, Wm. Vance 140
Baskin, Carol C. 132
Baskin, Jerry M. 132
Bliss, Margaret 125
Bock, Carl E. 429
Bock, Jane N. 429
Bragg, Thomas B. 202
Brown, David E. 411
Burr, Brooks N. 215
Butler, Jack. 378

Carey, Hannah V. 267
Carpenter, Stephen R. 282
Cheplick, Gregory P. 394
Choromanski-Norris, Jane 101
Chung, Jayson C. 315
Cox, George W. 64
Crews, Amy E. 304

Dauble, Dennis D. 356
Deegan, Linda A. 296
de la Rosa, M. E. 219
Detling, James K. 197

Ehrlich, Paul R. 1
Elser, James J. 282
Elser, Monica M. 282
Esch, Gerald W. 304

Franz, Eldon H. 387
Fritzell, Erik K. 101

Gaso, M. I. 219
Geluso, Kenneth N. 202
Glazier, Douglas S. 57
Goater, Timothy M. 304
Goetz, Harold 378
Gonzalez, F. 219
Gooch, James L. 57
Grossfield, Joseph 25
Guzman, J. 219

Hager, Barbara J. 7
Hasbrouck, J. J. 246
Hazen, Terry C. 304
Hiebert, Ronald D. 276
Holman, J. Alan 213

Johnson, Ann F. 423
Jones, Kristina N. 1

Kapp, Ronald O. 368
Kelly, George M. 108
Kenney, William R. 429
Killingbeck, Keith T. 180
Kirkpatrick, R. L. 246
Kruckeberg, A. R. 403
Kuhajda, Bernard R. 215
Kurczewski, Frank E. 7

Levine, L. 219
Lightfoot, David C. 45
Loehle, Craig 190
Lynch, James F. 225

Mackay, William P. 45
Marcogliese, David J. 304
Martin, Craig E. 118
Mason, L. G. 323
McCrea, Kenneth D. 422
McCune, Bruce 163
Mehlhop, Patricia 225
Menges, Eric S. 163
Minnich, Richard A. 411
Monson, Russell K. 197
Moore, Patricia 267
Morse, Douglass H. 341

Neill, Christopher 296
Neves, Richard J. 329
Norman, Frank 118

Odendal, Francois J. 1
Olverea, O. 219

Pagani, Maria Inez 456
Pavlovic, Noel B. 276
Phillips, Dennis R. 206
Probst, John R. 87

Rebertus, Alan J. 240
Resetarits, William J., Jr. 256
Richardson, J. L. 378
Riopel, James L. 140
Rockwell, R. F. 219

Sargeant, Alan B. 101
Schnebel, Edgar N. 25
Schroder, Gene D. 202
Servello, F. A. 246
Siccama, Thomas G. 209
Silva, Selange 45
Simpson, Diana A. 108
Smith, David L. 78
Smith, Michael E. 348
Somers, Keith N. 36
Stechey, Daniel P. M. 36
Stephenson, Steven L. 173
Storm, Gerald L. 108

Turner, David P. 387

Ungar, Irwin A. 152

Vickery, Robert K., Jr. 206

Waller, Donald M. 315
Warren, Melvin L., Jr. 215
Weathers, Kathleen C. 209
Wertis, Barbara A. 152
Whitford, Walter G. 45
Wilcox, Douglas A. 276
Williams, George J. III 197
Wonsavage, Paul R. 206

Yeager, Bruce L. 329

Zangerl, Arthur R. 432

SUBJECT INDEX

Ammophila harti, nesting behavior 7
Amphibians, Frog use of caves 256
Amphicarpum purshii, self-fertilization . 394
Arizona, response of shrub to protection from grazing 429
Asarum canadense, seed germination ecophysiology 132
Atriplex triangularis, seed demography and seedling survival 152
Baccharis pteronioides, response to protection from grazing 429
Behavior, *Ammophila* nest building 7
egg burying of *Etheostoma tippecanoe*. 215
fire-avoidance behavior in meadow voles 202
foraging of crab spiders 341
predation of ambush bugs 324
Birds, habitat relationships on successional gradient 225

Kirtland's warbler breeding 87
California, checkerspot butterfly, paternal investment 1
fire in creosote bush scrub 411
foraging and predation risk in marmots 267
mima mounds indicate grassland-chaparral boundary 64
Castor canadensis, bogs as habitat 240
Catostomus macrocheilus, life history and ecology 356
Caves, frog use 256
Ceratiola ericoides, biomass recovery after fire 423

Chihuahuan Desert, soil arthropods .. 45
Columbia River, life history and ecology of largescale sucker..... 356
Conopholis americana, life history..... 140
Coryphantha vivipara, effects of spine removal 118
Crepidostomum cooperi, population biology..... 304

Dendroica Kirtlandii, factors limiting on breeding grounds 87
Dero nivea, Rhabdostyla sp. on 348
Drosophila spp., density dependence .. 219
oviposition temperature..... 25

Ecology animal, bird habitat relationships 225
bobcat movement..... 222
bogs as beaver habitat 240
Drosophila density dependence 219
Drosophila oviposition temperature .. 25
effect of photoperiod and nutrition on pine vole reproduction..... 246
factors limiting Kirtland's warbler .. 87
foraging and predation risk in marmots 267
foraging of crab spiders..... 341
frog use of caves..... 256
insect predation on sumac seeds... 315
liming of lake 282
populations of pine voles..... 108
seasonal activity of weight changes of Franklin's ground squirrel..... 101
soil arthropods 45
Ecology plant, biomass recovery after fire 423
creosote bush scrub fire..... 411
effects of spine removal on cactus.. 118
habitat and diversity of coastal wetlands..... 296
historical data on midwestern forests 163
insect predation on sumac seeds... 315
leaf values and defense in *Pastinaca*. 432
liming of lake 282
litterfall dynamics in gallery forest . 180
mima mounds indicate grassland-chaparral boundary..... 64
population spread of *Silene paradoxa*. 403
response of shrub to protection from grazing..... 429
seed dispersal of *Minulus* guttatus.. 206
seedling survival of *Atriplex* 152
succession in chestnut forest 173
vegetation-soil relationships..... 378
vegetation patterns in pannes 276
vegetation pattern in cedar-hemlock forest 387
Erratum..... 224
Etheostoma tippecanoe, reproduction.... 215
Euphydryas editha, spermatophore as paternal investment 1

Felis rufus, movements 222
Fire, biomass recovery after 423
changes in creosote bush scrub.... 411
avoidance behavior of meadow voles..... 202
Fish, hosts of *Quadrula cylindrica*..... 329
life history and ecology of largescale sucker..... 356
reproduction of *Etheostoma* 215
Florida, biomass recovery after fire in scrub 423
Foraging, crab spider..... 341
predation risk in marmots..... 267
Gammarus minus, heterozygosity..... 57
Genetics, heterozygosity in *Gammarus minus* 57
Hexagenia limbata, parasitized by *Crepidostomum cooperi* 304

Idaho, bobcat movement..... 222
understory vegetation patterns in forest 387
Indiana, vegetation patterns in pannes..... 276
Insects, checkerspot butterfly paternal investment..... 1
Drosophila density dependence..... 219
Dropsophila oviposition temperature . 25
leaf litter processing in stream 78
nesting behavior of *Ammophila*..... 7
predation behavior of ambush bugs 323
predation on seeds 315
Invertebrates, other than insects, crab spider hunting..... 341
crayfish trappability 36
heterozygosity in *Gammarus minus* ... 57
leaf-litter processing in streams..... 78
soil arthropods 45

Kansas, effects of spine removal on cactus..... 118
leaf-litter processing in streams..... 78
litter-fall dynamics in gallery forest 180
Kentucky, reproduction of *Etheostoma tippecanoe* 215
seed germination ecophysiology ... 132

Lakes, crayfish trappability..... 36
liming experiment 282
Louisiana, delta lobe developement and

coastal wetlands 296

Maine, foraging behavior of crab spiders 341
Mammals, beaver habitat 240
bobcat movements 222
foraging and predation risk of marmot 267
Franklin's ground squirrel seasonal activity 101
mastodont 368
meadow vole, fire behavior 202
pine vole 108, 246
Mammut americanum, pollen and macrofossils with 368
Marmota flaviventris, foraging and predation risk 267
Maryland, bird/habitat relationships on successional gradient 225
Mexico, *Drosophila* density dependence 219
Michigan, factors limiting Kirtland's warbler 78
liming of lake 282
mastodont, pollen and macrofossils 368
morphology, fertility and chromosomes of *Mimulus* 125
population biology of *Crepidostomum cooperi* on burrowing mayfly 304
Microtus pennsylvanicus, fire-avoidance behavior 202
M. pinetorum, populations 108
reproduction 246
Mimulus glabratus, morphology, fertility, chromosomes 125
M. guttatus, seed dispersal 206
Minnesota, bogs as beaver habitat ... 240
Mississippi River, delta lobe development and wetlands 296
Missouri, ecology of cave use by frog 256
Misumena vatia, hunting. 341

Nebraska, fire-avoidance behavior in meadow voles 202
New Jersey, self fertilization in *Amphicarpum purshii* 394
New Mexico, soil arthropods 45
New York, nesting behavior of *Ammophila* 7
predation behavior of ambush bugs 323
North Dakota, seasonal activity and weight changes of Franklin's ground squirrel 101
vegetation-soil relationships in Badlands 378
Nutrient cycling, litterfall dynamics and element use efficiency 180

Ohio, turtles from late Wisconsinan . 213
seed and seedlings of *Atriplex triangularis* 152
Ontario, crayfish trappability 36

Parasites, population of *Crepidostomum cooperi* 304
rabbit's foot mussel and fish hosts.. 329
Rhabdostyla on *Dero nivea* 348
Pastinaca sativa, leaf value and optimal defense 432
Pennsylvania, heterozygosity in *Gammarus minus* 57
populations of pine vole 108
Phototropism, effects of habit and growth form 190
Phymata americana, predation, sexual dimorphism and seasonal change 323
Physiology, plant, defensive compounds in *Pastinaca* 432
phototropism of whole trees 190
seed germination ecophysiology ... 132
temperature effect on chlorophyll fluorescense in graminoids 197
Pleistocene, mastodont, pollen and macrofossils 368
turtles from late Wisconsin 213
Ponds, vegetation patterns in pannes. 276
Population, parasite on mayfly 304
pine vole in orchard 108
spread of *Silene paradoza* 403
Predation, behavior of ambush bugs . 323
foraging and risk in marmots 267
insects on seeds of sumac 315

Quadrula cylindrica strigillata, reproductive cycle and fish hosts. 329
Quercus inopina, biomass recovery after fire 423

Rana palustris, ecology of cave use. ... 256
Reproduction, checkerspot butterfly, paternal investment 1
Drosophila oviposition temperature .. 25
egg burying behavior of *Etheostoma tippecanoe* 215
factors limiting Kirtland's warbler on breeding grounds 87
photoperiod and nutrition effect on pine vole 246
rabbit's foot mussel and fish hosts.. 329
seed germination in *Asarum* 132
seedling survival in *Atriplex* 152

self-fertilization in *Amphicarpum purshii* 394
Reptiles, turtles from late Wisconsinan 213
Rhabdostyla sp., distribution and seasonal occurrence 348
Rhus glabra, insect predation on seeds. 315
Rhus spp., nutrient concentration.... 209

Silene paradoxa, population spread 403
Soil, effect of moisture and temperature on desert arthropods 45
Sonoran Desert, fire in creosote bush scrub..... 411
Spermophilus franklinii, seasonal activity and weight changes..... 101
Statement of Ownership 437
Streams, leaf-litter processing. 78
Mississippi River delta lobes and coastal wetlands 296
Succession, bird/habitat relationships 225
in chestnut forest 173
Systematics, plant morphology, fertility and chromosomes of *Mimulus* ... 125

Utah, seed dispersal of *Mimulus guttatus* 206

Vegetation, composition and diversity of coastal wetlands 296
historical data of midwestern forests 163
mima mounds indicate grassland chaparral boundary 64
patterns in pannes..... 276
soil relationships in Badlands 378
Virginia, life history of *Conopholis americana*..... 140
photoperiod and nutrition effects on pine vole 246
succession in chestnut forest 173

Washington, ecology and life history of largescale sucker..... 356
population spread of *Silene paradoxa*, 403
Wisconsin, insect predation on seeds of sumac 315
Rhabodstyla sp. on *Dero nivea*..... 348

CONTENTS

No. 1 January, 1986

Evidence Against the Spermatophore as Paternal Investment in Checkerspot Butterflies (Euphydryas: Nymphalidae) ..... Kristina N. Jones, Francois J. Odendaal and Paul R. Ehrlich 1

Nesting Behavior of Ammophila harti (Fernald) (Hymenoptera: Sphecidae) ..... Barbara J. Hager and Frank E. Kurczewski 7

Oviposition Temperature Range in Four Drosophila Species Triads from Different Ecological Backgrounds ..... Edgar M. Schnebel and Joseph Grossfield 25

Variable Trappability of Crayfish Associated with Bait Type, Water Temperature and Lunar Phase ..... Keith M. Somers and Daniel P. M. Stechey 36

Effect of Increased Soil Moisture and Reduced Soil Temperature on a Desert Soil Arthropod Community ..... William P. Mackay, Solange Silva, David C. Lightfoot, Maria Inez Pagani and Walter G. Whitford 45

Levels of Heterozgosity in the Amphipod Gammarus minus in an Area Affected by Pleistocene Glaciation ..... James L. Gooch and Douglas S. Glazier 57

Mima Mounds as an Indicator of the Presettlement Grassland-Chaparral Boundary in San Diego County, California ..... George W. Cox 64

Leaf Litter Processing and the Associated Invertebrate Fauna in a Tallgrass Prairie Stream ..... David L. Smith 78

A Review of Factors Limiting the Kirtland's Warbler on its Breeding Grounds ..... John R. Probst 87

Seasonal Activity Cycle and Weight Changes of the Franklin's Ground Squirrel ..... Jane Choromanski-Norris, Erik K. Fritzell and Alan B. Sargeant 101

Dynamics of Pine Vole Populations in Two Pennsylvania Orchards ..... Robert G. Anthony, Diana A. Simpson, George M. Kelly and Gerald L. Storm 108

Effects of Spine Removal on Coryphanha vivipara in Central Kansas ..... Frank Norman and Craig E. Martin 118

The Morphology, Fertility and Chromosomes of Mimulus glabatus Var. Michiganensis and M. glabratus Var. Fremontii (Scrophulariaceae). . Margaret Bliss 125

Seed Germination Ecophysiology of the Woodland Herb Asarum canadense ..... Jerry M. Baskin and Carol C. Baskin 132

Life History Studies of Conopholis americana (Orobanchaceae) ..... Wm. Vance Baird and James L. Riopel 140

Seed Demography and Seedling Survival in a Population of Atriplex triangularis Wild ..... Barbara A. Wertis and Irwin A. Ungar 152

Quality of Historical Data on Midwestern Old-growth Forests ..... Bruce McCune and Eric S. Menges 163

Changes in a Former Chestnut-dominated Forest after a Half Century of Succession ..... Steven L. Stephenson 173

Litterfall Dynamics and Element Use Efficiency in a Kansas Gallery Forest ..... Keith T. Killingbeck 180

Phototropism of Whole Trees: Effects of Habitat and Growth Form ..... Craig Loehle 190

Notes and Discussion

Growth Temperature Effects on Chlorophyll Fluorescence Yield in 15 Graminoid Species ..... George J. Williams III, Russell K. Monson and James K. Detling 197

Fire-avoidance Behavior of Meadow Voles (Microtus pennsylvanicus) ..... Kenneth N. Geluso, Gene D. Schroder and Thomas B. Bragg 202

Seed Dispersal in Mimulus guttatus by Wind and Deer ..... Robert K. Vickery, Jr., Dennis R. Phillips and Paul R. Wonsavage 206

A Comparison of Nutrient Concentration in Two Poisonous and Three Nonpoisonous Species of Sumac (Rhus app.) ..... Kathleen C. Weathers and Thomas G. Siccama 209
Turtles from the Late Wisconsinan of West-central Ohio ..... J. Alan Holman 213
Aspects of the Reproductive Biology of Etheostoma tippecanoe With Comments on Egg-burying Behavior ..... Melvin L. Warren, Jr., Brooks M. Burr and Bernard R. Kuhajda 215
Chromosomal and Behavioral Studies of Mexican Drosophila: Density Dependence in Larva to Adult Survival in Drosophila pseudoobscura and D. melanogaster ..... F. Gonzalez, J. Guzman, L. Levine, O. Olverea, R. F. Rockwell, M. E. de la Rosa and M. I. Gaso 219
Long-distance Movements by Two Bobcats from Southeastern Idaho ..... Steven T. Knick and Theodore N. Bailey 222
Erratum 224

CONTENTS
No. 2 October, 1986

Bird/Habitat Relationships along a Successional Gradient in the Maryland Coastal Plain ..... Patricia Mehlhop and James F. Lynch 225
Bogs as Beaver Habitat in North-Central Minnesota ..... Alan J. Rebertus 240
Influence of Photoperiod and Nutrition on Pine Vole Reproduction ..... J. J. Hasbrouck, F. A. Servello and R. L. Kirkpatrick 246
Ecology of Cave Use by the Frog, Rana palustris ..... William J. Resetarits, Jr. 256
Foraging and Predation Risk in Yellow-bellied Marmots ..... Hannah V. Carey and Patrice Moore 267
Vegetation Patterns in and among Pannes (Calcareous Intradunal Ponds) at the Indiana Dunes National Lakeshore, Indiana ..... Ronald D. Heibert, Douglas A. Wilcox and Noel B. Pavlovic 276
Paul and Peter Lakes: A Liming Experiment Revisited ..... Monica W. Elser, James J. Elser and Stephen R. Carpenter 282
The Effect of Mississippi River Delta Lobe Development on the Habitat Composition and Diversity of Louisiana Coastal Wetlands ..... Christopher Neill and Linda A. Deegan 296
A Long-term Study on the Population Biology of Crepidostomum cooperi (Trematoda: Allocreadidae) in the Burrowing Mayfly, Hexagenia limbata (Ephemeroptera) ..... Gerald W. Esch, Terry C. Hazen, David J. Marcogliese, Timothy M. Goater and Amy E. Crews 304
Patterns of Insect Predation on Seeds of Smooth Sumac (Rhus glabra L.) ..... Jayson C. Chung and Donald M. Waller 315
Free-loaders, Free-lancers and Bushwhackers: Sexual Dimorphism and Seasonal Changes in Prey-capture Behavior of Ambush Bugs ..... L. G. Mason 323
Reproductive Cycle and Fish Hosts of the Rabbit's Foot Mussel, Quadrula cylindrica strigillata (Mollusca: Unionidae) in the Upper Tennessee River Drainage ..... Bruce L. Yeager and Richard J. Neves 329
Foraging Behavior of Crab Spiders (Misumena vatia) Hunting on Inflorescences of Different Quality ..... Douglass H. Morse 341
Distribution Patterns and Seasonal Occurrence of Rhabdostyla sp. (Petritricha: Epistylididee) on Dero nivea (Oligochaeta: Naididae) ..... Michael E. Smith 348
Life History and Ecology of the Largescale Sucker (Catostomus macrocheilus) in the Columbia River ..... Dennis D. Dauble 356
Late-glacial Pollen and Macrofossils Associated with the Rappuhn Mastodont (Lapeer County, Michigan) ..... Ronald O. Kapp 368
Vegetation and Soil—Landscape Relationships in the North Dakota Badlands ..... Jack Butler, Harold Goetz and J. L. Richardson 378

The Influence of Canopy Dominants on Understory Vegetation Patterns in an Old-growth Cedar-hemlock Forest . . . . . David P. Turner and Eldon H. Frans 387
Self-fertilization in Amphicarpum purshii: Its Influence on Fitness and Variation of Progeny from Aerial Panicles . . . Gregory P. Cheplick and James A. Quinn 394
The Birth and Spread of a Plant Population . . . . . A. R. Kruckeberg 403
Fire and Changes in Creosote Bush Scrub of the Western Sonoran Desert, California . . . . . David E. Brown and Richard A. Minnich 411
Comparison of Biomass Recovery after Fire of a Seeder (Ceratiola ericoides) and a Sprouter (Quercus inopina) Species from South-Central Florida . . . . . Ann F. Johnson, Warren G. Abrahamson and Kenneth D. McCrea 423

Notes and Discussion

Responses of the Shrub, Baccharis pteronioides, to Livestock Exclosure in Southeastern Arizona . . . . . William R. Kenney, Jane N. Bock and Carl S. Bock 429
Leaf Value and Optimal Defense in Pastinaca sativa L. (Umbelliferae) . . . . . Arthur R. Zangerl 432
Statement of Ownership 437

AUTHOR INDEX

Abrahamson, Warren G. 423
Anthony, Robert G. 108

Baird, Wm. Vance 140
Baskin, Carol C. 132
Baskin, Jerry M. 132
Bliss, Margaret 125
Bock, Carl E. 429
Bock, Jane N. 429
Bragg, Thomas B. 202
Brown, David E. 411
Burr, Brooks N. 215
Butler, Jack. 378

Carey, Hannah V. 267
Carpenter, Stephen R. 282
Cheplick, Gregory P. 394
Choromanski-Norris, Jane 101
Chung, Jayson C. 315
Cox, George W. 64
Crews, Amy E. 304

Dauble, Dennis D. 356
Deegan, Linda A. 296
de la Rosa, M. E. 219
Detling, James K. 197

Ehrlich, Paul R. 1
Elser, James J. 282
Elser, Monica M. 282
Esch, Gerald W. 304

Franz, Eldon H. 387
Fritzell, Erik K. 101

Gaso, M. I. 219
Geluso, Kenneth N. 202
Glazier, Douglas S. 57
Goater, Timothy M. 304
Goetz, Harold. 378
Gonzalez, F. 219
Gooch, James L. 57
Grossfield, Joseph. 25
Guzman, J. 219

Hager, Barbara J. 7
Hasbrouck, J. J. 246
Hazen, Terry C. 304
Hiebert, Ronald D. 276
Holman, J. Alan. 213

Johnson, Ann F. 423
Jones, Kristina N. 1

Kapp, Ronald O. 368
Kelly, George M. 108
Kenney, William R. 429
Killingbeck, Keith T. 180
Kirkpatrick, R. L. 246
Kruckeberg, A. R. 403
Kuhajda, Bernard R. 215
Kurczewski, Frank E. 7